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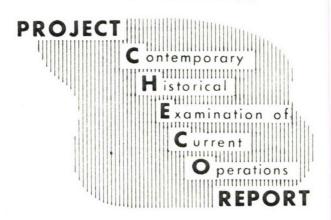
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## DEFENSE OF DA NANG 31 AUGUST 1969

HQ PACAF Directorate, Tactical Evaluation CHECO Division

> Prepared by: MR C. WILLIAM THORNDALE Project CHECO 7th AF, DOAC

DOTEC-69-59

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#### PROJECT CHECO REPORTS

The counterinsurgency and unconventional warfare environment of Southeast Asia has resulted in the employment of USAF airpower to meet a multitude of requirements. The varied applications of airpower have involved the full spectrum of USAF aerospace vehicles, support equipment, and manpower. As a result, there has been an accumulation of operational data and experiences that, as a priority, must be collected, documented, and analyzed as to current and future impact upon USAF policies, concepts, and doctrine.

Fortunately, the value of collecting and documenting our SEA experiences was recognized at an early date. In 1962, Hq USAF directed CINCPACAF to establish an activity that would be primarily responsive to Air Staff requirements and direction, and would provide timely and analytical studies of USAF combat operations in SEA.

Project CHECO, an acronym for Contemporary Historical Examination of Current Operations, was established to meet this Air Staff requirement. Managed by Hq PACAF, with elements at Hq 7AF and 7AF/13AF, Project CHECO provides a scholarly, "on-going" historical examination, documentation, and reporting on USAF policies, concepts, and doctrine in PACOM. This CHECO report is part of the overall documentation and examination which is being accomplished. Along with the other CHECO publications, this is an authentic source for an assessment of the effectiveness of USAF airpower in PACOM.

MILTON B. ADAMS, Major General, USAF

Chief of Staff



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#### **FOREWORD**

In the Winter-Spring Offensive of 1968-1969, Da Nang was a principal enemy target in the tactical zone of I Corps. The Marines had the overall responsibility of defending the city and air base of Da Nang. This report examines contributions of the Air Force to that defense.



#### THE DEFENSE OF DA NANG

### Marines Defend Da Nang

The Marines had the responsibility for defending Da Nang Air Base. The Air Force assisted by manning about one-tenth of the base perimeter, flying visual reconnaissance, and providing an AC-47 Spooky gunship on night orbit near the base. The base, which included the 1st Marine Air Wing, (MAW), was in the tactical area of responsibility (TAOR) of the Third Marine Amphibious Force (III MAF).

Da Nang was the command, logistics, and communications hub of III MAF and all I Corps. The Marines therefore had a particular military interest in suppressing enemy rocket attacks on the Da Nang Vital Area, which included the city, the air base, and several major headquarters compounds in the neighboring area. The 11th Marine Regiment (Artillery) scheduled helicopter sorties three times a day, the sole mission of which was to survey the enemy rocket belt surrounding the Vital Area. The Air Force flew visual reconnaissance (VR) in the lowlands to maintain surveillance of potential rocket launch sites. The ground commanders determined what type of fire would be put against enemy rocket sites discovered by visual reconnaissance. The commanders usually ordered artillery fire or ground sweeps as a result of the aerial VR. Air Force tactical fighters also flew a limited number of missions in support of the Marines around Da Nang in the 1st Marine Division (MarDiv) TAOR which, along with the tactical airstrikes in the lowlands by Marine aircraft, contributed to the defense of Da Nang.





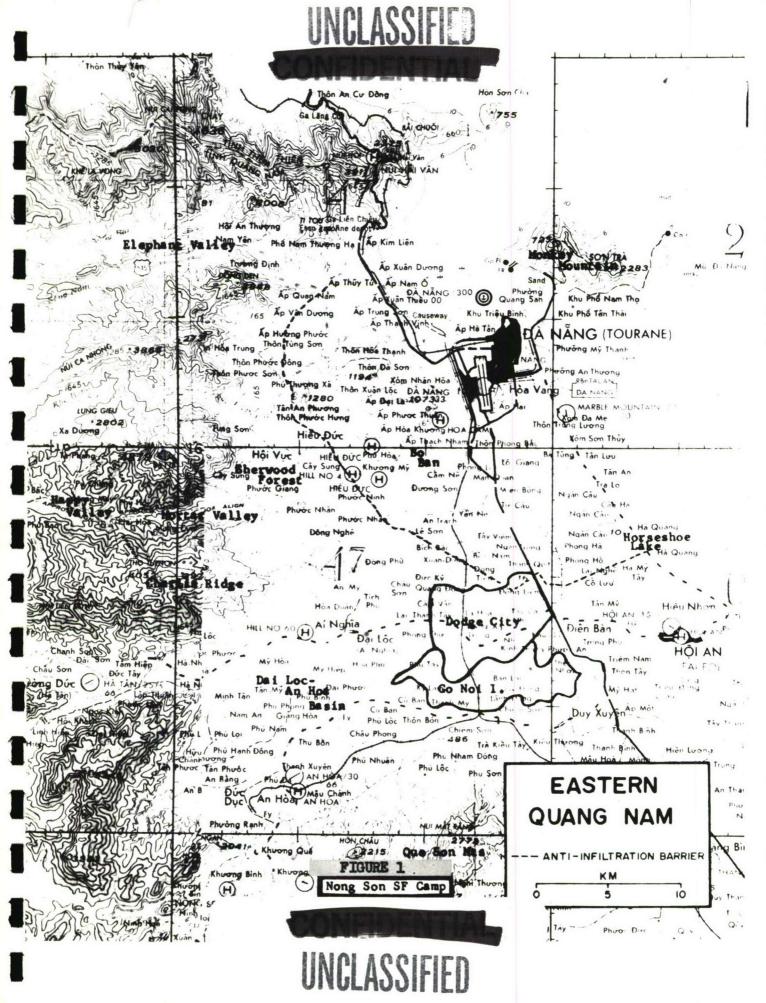
The story of the defense of Da Nang in the broadest sense would encompass the Air Force interdiction campaign in Laos and western I Corps, as well as the Marine ground operations in Quang Nam, the province surrounding the autonomous municipality of Da Nang. Such diverse topics as long-range reconnaissance patrols, pacification, Civic Action, Special Forces camps, and agent intelligence all played a role in stopping the enemy from reaching Da Nang. A complete account of the defense of Da Nang would cover the entire activities in central I Corps, operations performed principally by the Marines and supported mostly by Marine air. This report will review briefly only the Allied defenses against three forms of enemy attacks made on the air base: ground, sabotage/ sapper, and rocket.

#### Ground Attacks

The eastern portion of Quang Nam Province can be viewed as a right triangle with the coast--less Monkey Mountain--as the hypotenuse. The Cua Dai River, Go Noi Island, and the Dai Loc-An Hoa Basin compose the base; the eastern foothills form the perpendicular leg, and Da Nang is halfway down the hypotenuse. It is the second largest city in South Vietnam. Approximately 1,000,000 Vietnamese live within this area, one of the richest rice locations in I and II Corps.

As the only deepwater port between Haiphong and Qui Nhon, Da Nang was for many decades the administrative and logistics center of the French forces in Annam, and later for the U.S. forces in I Corps in the 1960s. By 1967, the area had the I Corps headquarters of the Army of Republic of Vietnam (ARVN) and the American headquarters of III MAF, the 1st MarDiv, the 1st MAW, the







Force Logistics Command, and the Air Force's 366th Tactical Fighter Wing (TFW). At the start of October 1968, the air base had a population of 20,000 of which 7,000 were Air Force personnel. The base also had nearly 100 fighter/attack aircraft (USMC: 28 F-4s and 11 A-6As; USAF: 52 F-4s and 6 F-102s), and a sizable number of support aircraft. Consequently, Da Nang was one of the world's busiest airfields.

American presence made Da Nang a tempting target for enemy attacks even though a buildup of U.S. ground forces enhanced the security of Da Nang. By mid-1968, the massive attempt by the North Vietnamese Army (NVA) to overrun northern Quang Tri Province along the Demilitarized Zone had failed. The increasingly weak offensives of Tet, May, and August 1968 revealed the enemy's dilemma--how to avoid defeat while increasing pressure on anti-war sentiment in the United States, so that American troops would leave. An obvious answer in I Corps was to attack Da Nang and reap the headlines. Captured documents and interrogations of prisoners revealed the planned enemy Winter-Spring Offensive of 1968/1969 marked Da Nang as the number one target in I Corps.

The enemy position in eastern Quang Nam in late 1968 was a ghost of the heady days in early 1965 when the Viet Cong controlled most of rural Quang Nam, and the U.S. Marines had intervened to prevent the conquest of all the province. Relentlessly, the Marines had moved west and south out of the city, repeatedly sweeping enemy staging areas such as Charlie Ridge and Go Noi Island, pushing the enemy main force units farther into the hills and widening the buffer zone around Da Nang. By early 1969, five Marine regiments, one Korean brigade, and one ARVN regiment ringed the city and effectively kept the scattered enemy at





bay. Overall, the Allies had 25,000 regular troops in Quang Nam.

Operations such as MAMELUKE THRUST on Charlie Ridge, and ALLEN BROOK farther south, were typical missions in mid-1968 which took the offensive and carried the war to the enemy. Even more notable were HENDERSON HILL in the Dai Loc-An Hoa Basin, and MEADE RIVER in the Dodge City area, just north of Go Noi Island. The latter operation used seven Marine battalions and some ARVN troops to cordon an estimated 1,300 enemy into a staging area of fortified hamlets, tunnels, trenches, and a network of rivers and streams. MEADE RIVER (20 November-9 December 1968) accounted for 1,210 enemy killed or captured; it crippled a planned attack on Da Nang. HENDERSON HILL spread a thicket of patrols and ambushes along the traditional enemy infiltration routes from the Base Area 112 to the Go Noi-Dodge City area, and thereby sharply curtailed the movement of men and supplies into the lowlands. In January 1969, TAYLOR COMMON carried the war into Base Area 112 by conducting helicopter assaults and mobile fire support base operations in the jungle hills. In later months, ground operations such as OKLAHOMA HILLS and PIPESTONE CANYON continued Allied pressure. Thus, the Marines remained on the offensive, and the successful defense of Da Nang was won miles from the city and air base.

With the launching of the Fourth Offensive on 23 February 1969, in evidence was the impact on the enemy of the deep defense ring around the city and the spoiling operations. Just after midnight, a few VC/NVA companies attacked the two main bridges south of the air base and assaulted Marine positions four miles south of nearby Marble Mountain airstrip. There were also several small engagements elsewhere. A few company-size attacks, in which no enemy reached







the air base or the city, were the extent of the Fourth Offensive in Quang  $\underline{6/}_{\rm Nam_{\circ}}$ 

Marine air provided most of the tactical sorties in support of Marine operations. To illustrate the Air Force's contribution to these ground operations, the number of sorties supporting the ground units was totaled for the seven months from October 1968 to April 1969. Included in the total sorties provided by the Marines were 234 U.S. Navy sorties (App. I). Statistics totals were:

Units Supported	Sour	ce of Sorti USMC/USN	Total Sorties		
ARVN in Quang Nam	698	882	1,107	2,687	
1st Marine Division	528	9,760	-	10,288	
2d ROK Brigade	9	759	-	768	
TOTAL	1,235	11,401	1,107	13,743	

In these seven months, the Air Force provided nine percent of the tactical sorties supporting the ARVN, Marines, and ROKs in Quang Nam.

Among the attack forces was the AC-47 gunship, noted for its ability to maintain an airborne alert that assured very rapid close air support for troops in contact and for perimeter defenses. Da Nang usually had a Spooky gunship overhead continuously during night hours. Its three 7.62 miniguns had individual fire rates of 3,000 and 6,000 rounds per minute. On each sortie, Spooky carried 21,000 rounds of ammunition and 40 illumination flares of two-million candlepower each. The ability of the gunship to attack enemy troops made it a





vital part of the defense of Da Nang. From February 1968 through May 1969, the Spookies at Da Nang flew 2,403 sorties in the Da Nang TAOR, attacked 1,730 targets, and expended 39,594 flares and 23,641,900 rounds of ammunition.

Another way in which ground forces increased the security of Da Nang was to build a 48-kilometer-long anti-infiltration trace around the vital area. Figure 5 shows the location of the system with its Marine section northwest of the Yen River, and the ARVN half southeast of the river. The trace lay approximately at the maximum range of a 122-mm rocket fired at Da Nang Air Base or Marble Mountain.

The ARVN section, ordered built in 1968 by the I Corps Commanding General, ran from the ocean across the flatlands toward Charlie Ridge. It consisted of fences of barbed and concertina wire, 100 to 200 meters apart, augmented by observation towers and bunkers. The enemy, however, had little trouble passing through this fence, especially when moving into the Horseshoe Lake area. In this area near the ocean, a few kilometers north of the fence, the 1st MarDiv emplaced occasional seismic and magnetic sensors to monitor enemy entering the Marine TAOR.

The Marine portion of the anti-infiltration trace ran north from the ARVN fence. Through the center of a 500-meter swathe cut in the forest and grasslands ran a barrier similar to the ARVN fence, except that it did not have watch towers. Instead, the trace had a continuous chain of 100-meter segments of Balanced Pressure Sensors (BPS). These sensors worked on a balanced pressure principle in which two parallel, fluid-filled cables 100 meters long and four to five feet apart were buried 18-36 inches deep. When personnel or vehicular



movement occurred on the ground above the cables, the change in pressure forced fluid into a recorder at one end, inducing an electrical impulse, which was received at a monitoring station. Artillery fire could then be directed on the site of the activity, if there were no friendly troops in the area.

The BPS system was tested in November and December 1968 from assets intended but never used for the so-called "McNamara's Wall" along the DMZ. By August, the system was about 60 percent operational, with an unfinished gap lying due west of Da Nang City. The work crews with their tractor-powered trencher were special targets for attacks, because the enemy soon learned how effective the sensor trace and artillery could be in cutting traditional infiltration routes.

According to the Ground Surveillance Officer of the 1st MarDiv, the first operational section along the foot of Charlie Ridge and the mouth of Mortar Valley blocked infiltration so decisively that enemy troops had to make time-consuming detours around the ends of the barrier. The following is representative of one week's operations:

"24-30 Jan 1969: 1st Mar Div continued sensor operations along infiltration routes and rocket launch positions in the Da Nang barrier and its southern approaches. Two targets acquired by BPS confirmed as En by Starlight Scope, and fired on by 60-mm, 81-mm, 105-mm, and small arms fire. Fire response on one sensor activation alerted ambush patrol to En activity. Twenty-five minutes later same ambush engaged 12-15 En, resulting in three NVA KIA, one AK-47, three CHICOM grenades and three 60-mm rds captured."

Additionally, seismic sensors along trails west of the balanced pressure trace







detected enemy forces that were then ambushed or brought under artillery fire.

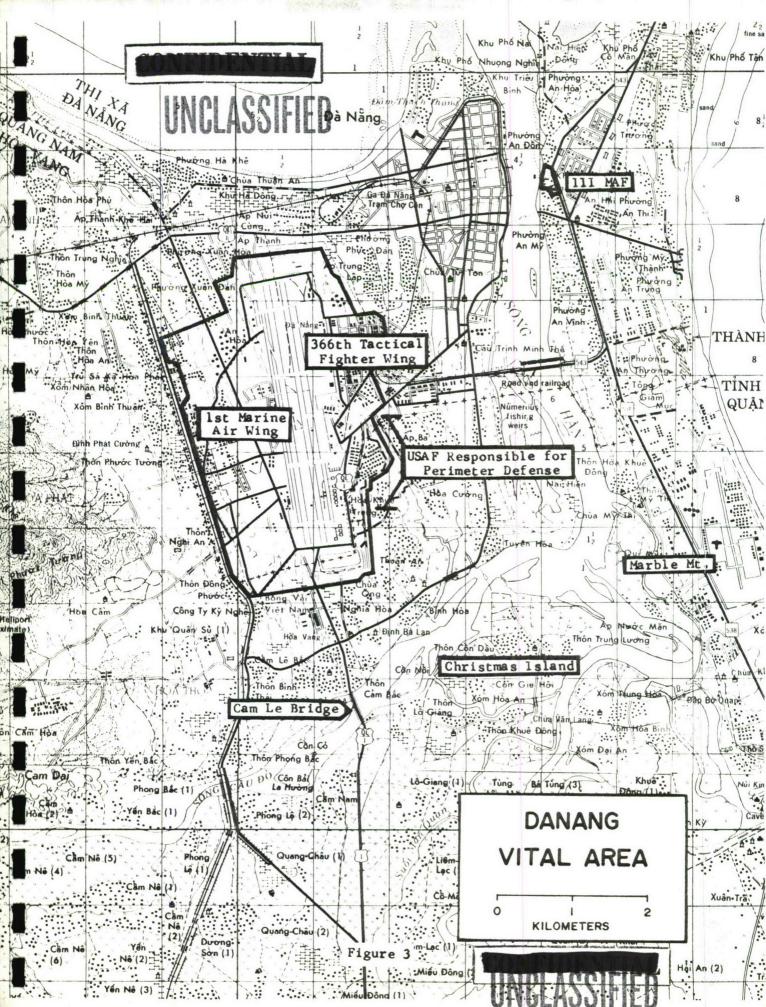
### <u>Perimeter Defense</u>

Perimeter and internal base security traditionally rested with the service occupying the base and so it was in Vietnam, especially since COMUSMACV discouraged the use of combat troops in static defenses. Base commanders had the responsibility for insuring their own base defense. At first, this proved disadvantageous for the Air Force in Vietnam, because its security forces were not manned for an insurgency environment threatening ground and sapper attacks.

Since the 1968 Tet Offensive, the greatly expanded capabilities of the Air Force Security Police (SP) in Vietnam have been documented in CHECO report, "7AF Local Base Defense Operations." This strengthening of security forces, the introduction of heavier weapons and armored vehicles, and the training of nonsecurity personnel for base defense during critical periods took place at Da Nang Air Base, as it did at the other air bases in Vietnam.

The perimeter defense of the air base, however, did not rest heavily on Air Force shoulders at Da Nang. The III MAF Operations Order 308-67 assigned the 1st Marine Military Police Battalion (1st MPs) the overall responsibility for defending the air base, though portions of the perimeter were farmed out to resident units at the base. Most notably, the 1st MAW manned the guard posts and bunker positions along the northwest corner, the VNAF's 41st Tactical Air Wing had a segment of the eastern perimeter, and the 366th TFW had responsibility for the sector shown in Figure 3. (Figs. 2 and 4 depict the Air Force's area.) The 1st MPs was the pace setter at the base and, when it assumed









security alert, the other units followed. (However, Seventh Air Force policy required all its bases to go on alert if two air bases were attacked within any one hour period. In such cases, the 1st MPs did not necessarily join the Air Force on alert status.)

The 1st MPs also patrolled beyond the base perimeter and guarded the vital Cam Le and Cau Do bridges south of the base. The MPs, with their field combat training, could conduct night patrols and ambushes outside the base. As happened in the early hours of the Fourth Offensive, they engaged enemy forces before the infiltrators could reach the perimeter wire.

Air Force security forces were assigned to the 366th Security Police Squadron (SP Sq), and were reinforced during high-threat periods by augmentees from various subordinate units of the 366th TFW. The squadron had 687 men authorized, though assigned totals sometimes fell below authorized levels. During the second quarter of 1968, the squadron had only two of its seven top NCO positions filled. By late 1968, the problem eased considerably, only to During the high-threat hours from 2100 recur to a lesser degree in mid-1969. to 0400, half the security police stood duty, including those doing perimeter defense, guarding the flight line and billeting compounds, and manning the control rooms. Part of the nighttime forces consisted of approximately 30 sentry dog handlers stationed around nearly the entire base perimeter, because the Marines had no sentry dogs. Additionally, there was a quick reaction team of 12 men at each end of the runway. Squadron firepower included M-16 rifles, M-60 machine guns, one 81-mm mortar team, and five armored personnel carriers with mounted machine guns. The Spooky gunship was also on call at night.





The 366th SP Sq had the specific responsibility of security of the following portions of Da Nang Air Base: the several Air Force headquarters compounds, including the Wing's main billeting area called Gunfighter Village; the approximately 1,300 meters of perimeter east of Gunfighter Village; the Air Force aircraft and flight line facilities, and the Air Force on-base and off-base munitions storage areas in the southwest vicinity of the base. Thus, despite having only a small portion of the actual perimeter, the Air Force defended a large part of the east half of the air base.

The SP Sq was augmented by additional forces during alerts; for example, by 50 men during condition Yellow. Listed in simplified language, the specific alert conditions were as follows:

- 1. White: Normal minimum security.
- 2. Gray: Increased vigilance by Security Police.
- 3. Yellow: Attack predicted, but time unknown.
- 4. Red: Option I Imminent attack by small attack force or by mortar or rockets.

Option I Alpha: Imminent attack by moderate forces.

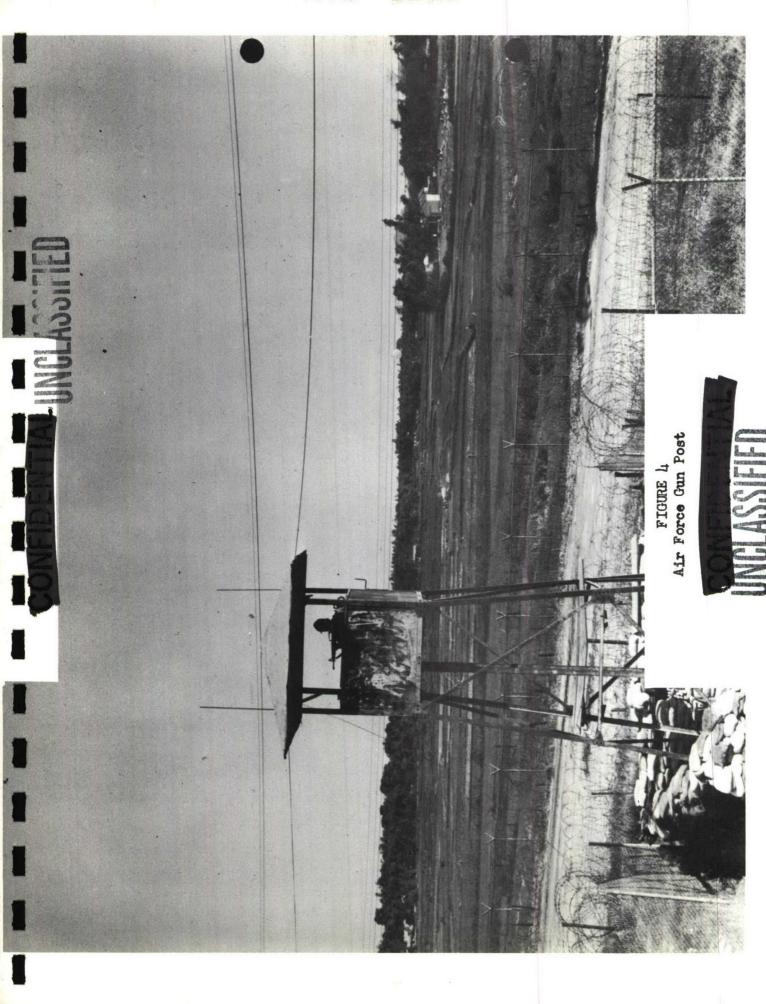
Option I Bravo: Imminent attack in Da Nang area by large forces.

Option I Charlie: Imminent attack against Da Nang Air Base by large forces.

Red: Option II - Last ditch defensive effort, with the evacuation of all possible priority resources.

The breakout of several categories in Red Option I permitted needed flexibility to minimize disruption of other operations, and allowed the orderly mass issuance







of arms. Options Alpha through Charlie called for arming 300, 600, and 900 augmentees, respectively.

Initially, as Tet 1968 had shown, Air Force personnel outside the security squadrons were generally not very familiar with their duties during extreme security alerts. This became apparent at Da Nang on 12 June 1968, when a Red Option II exercise received a "marginal" rating by the Inspector General when "only 20 percent of the personnel assigned to the 366th Headquarters and 13 percent of those in the Field Maintenance Squadron responded to their assembly points for the mass issuance of arms." To rectify this shortcoming, four red alerts were called later that month, until the last alert achieved 85 percent issuance of arms in the headquarters section. Six months later two similar alerts received "excellent" ratings.

In early 1969, the facilities and perimeter were even further hardened with new roofs and sandbagging for the flight line and perimeter bunkers. New weapons positions were built, more concertina wire was laid, and more trip flares and Claymore mines were emplaced. There was no doubt that the Air Force security forces during the 1968/1969 Winter-Spring Offensive had the manpower and firepower to guarantee the accomplishment of their responsibilities. However, they never faced a test, though occasionally there was scattered small-  $\frac{24}{}$  arms fire received along the perimeter.

Similarly, the security forces guarding the flight line and the compounds experienced no sapper attacks or known sabotage. Whether the freedom from such harassment stemmed from successful Allied security, or from a lack of enemy attempts was not known. However, on 18 September 1968, three women on the





base and twelve in the city were apprehended wearing a sapper recognition signal—a two-inch red string in their coolie hats. The Marines had captured a VC female sapper with that identification sign the previous day. In any case, the VNAF was responsible for the clearance, screening, security checks, and checkpoint searches for the 1,800 Vietnamese civilian employees entering the base daily. (The Air Force did conduct security searches of those Vietnamese entering Air Force facilities.) Counterintelligence was the responsibility of the Office of Security Intelligence (OSI).

There existed one other Air Force activity--Civic Action--contributing to base defense, though security was not the specific and clearly pursued intent of that program. Indeed, just what balance of goals Air Force Civic Action sought among humanitarianism, pacification, base security, and nation building was uncertain. Personnel in charge of perimeter defense had not considered Civic Action a potential tool, nor had they kept abreast of the program. The SPs performed Civic Action, not because it was relevant to security, but because it was a unit of the 366th TFW.

Yet, the two hamlets assigned directly to the 366th TFW lay astride the most obvious route for an enemy attack on the Air Force's perimeter. Figures 3 and 4 show how the Air Force's perimeter overlooked rice paddies connecting directly with the Cau Do River. They also reveal how "Christmas Island" lay across the river from the paddies. The Air Force worked with the two hamlets on the island--Con Dau and Trung Luong--providing construction materials, student scholarships, and technical assistance. The Civic Action officer specifically downgraded handouts, and considered such humanitarian projects



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within the domain of the Chaplain.  $\frac{28}{100}$ 

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So far as base security was concerned, the Civic Action Program returned dividends. In mid-August, 11 suspected Viet Cong, including the hamlet chief, were arrested at Con Dau; documents found at that time, indicated a planned attack against Da Nang. On 21 August, the Civic Action Officer reported an unusually large number of Vietnamese heading for the base and alerted U.S. forces. The following night, fighting and attacks occurred south of the base. This casual familiarity and presence of Civic Action personnel on the island led them twice in 1969 to discover mortar caches initially found by Vietnamese children. Clearly, the Air Force perimeter was a little more secure because of the Civic Action Program.

### Rocket Attacks

The enemy's most effective weapon against Da Nang was the rocket, which made possible attacks on the air base from up to 11,000 meters away. Indirect attacks by fire from seven miles gave a tremendous potential to an enemy having difficulty breaching the effective Allied defense in depth around the city and air base. The rocket attacks cost the Air Force far more damage than the weak ground probes. The Commander, 366th TFW, stated that in the 12 months from the first attack in February 1967, the enemy launched 297 rockets into the air base, killing 22 Americans and 35 Vietnamese, and wounding 488 of both nationalities. The estimated damage of \$110 million came to \$370,000 per rocket.

Use of standoff rocket attacks was one of the most successful guerrilla tactics developed and employed by the enemy in the war. The attack of 15 July 1967 displayed the potential of the weapon when: (1) the enemy had time to



launch several volleys from the rocket launchers; and (2) the aircraft had no overhead revetments. Although the Marines estimated that five sites each fired about fifty 122-mm rockets, the Air Force After Action Report stated an estimated 83 rockets struck within the air base proper. In 20 minutes, just after midnight the rockets and resulting secondary explosions killed eight Air Force personnel and destroyed six F-4s and two C-130s. Summarizing, the Air Force had 43 aircraft destroyed or damaged, and the Marines had two F-8s destroyed and two A-4s damaged. The Air Force also suffered \$1.5 million in property loss.

In this classic rocket attack, the enemy displayed the great accuracy of the 122-mm rocket launcher. However, the unwieldiness of the launcher--120 pounds and eight feet long--made its use logical only when several rounds could be fired from a tube during an attack. This required time. The After Action Report stated that counter-artillery fire began one minute after the first rocket impact, and that an AC-47 gunship provided suppressive fire. Yet, despite some enemy being killed and wounded by the Allied fire, the rockets continued to launch for 20 minutes.

The sporadic but troublesome rocket attacks on the air base, and particularly those during the 1968 Tet Offensive, led the Air Force in February 1968 to conduct an intensified 0-1/0-2 search for potential rocket sites. The week's  $\frac{33}{4}$  effort located 32 positions and led to tactical air strikes and ground sweeps.

In their search, the FACs knew the enemy attacks against the air base had come from one of three small areas, each lying along a major stream. Transporting rockets by sampans was the desired tactic for the enemy. Figure 5 locates the launch sites in the Da Nang area and designates by a separate symbol the

Figure 5



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positions used against the air base. The main cluster of sites around the Bo Ban hamlets was the location of the first attack on the air base and also of the 15 July 1967 attack. Smaller clusters of sites existed on the Tuy Loa and Vinh Dien Rivers.

Figure 5 also distinguishes between attacks launched before and after September 1968, thereby revealing that the enemy continued to use the Bo Ban area during 1969. This fact is significant because the Bo Ban area lay between two Marine observation towers standing on hills only six kilometers apart. Further, a completed section of the anti-infiltration sensor system lay between Bo Ban and the enemy supply areas in the hills. Despite Allied surveillance and ground sweeps, the enemy managed to get within rocket range of the air base.

To prevent or curtail such rocket attacks, the Allies had four general countermeasures: prevent the enemy rocket units from reaching the firing sites; maintain surveillance of sites to prevent preparations for rocket firings; respond with very rapid counterfire when rockets were launched; and shield vulnerable facilities and aircraft with revetments. Allied forces by the very nature of their missions carried out these routine measures through 1967, but soon they instituted and intensified specific counter-rocket efforts. As has already been mentioned, by February 1968, the rocket attacks on Da Nang Air Base had cost an estimated \$110 million in damages and, according to the 366th TFW Commander, "significantly interfered with our combat mission." Accordingly, the Air Force placed special emphasis on building overhead aircraft revetments, and maintaining aerial surveillance of the potential launch sites. These efforts continued through the seven months of the enemy 1968/1969 Winter-Spring





Offensive.

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Controlling the area within 11,000 meters of the air base was the most effective Allied means of stopping rocket attacks. (Though 11,000 meters was the normal maximum range of the 122-mm rocket, on rare occasions a superior launch elevation, a favorable wind, and a long burn would combine to add perhaps a thousand meters to the range.) The other workhorse of the enemy's rocket arsenal—the 140-mm—had a maximum range of 10,000 meters. The rockets also had a minimum range and, in any case, the enemy attacked with standoff indirect fire, so there was a "rocket belt" around the base.

By mid-1968, Allied troops were effectively pushing the enemy away from the city, making it increasingly difficult to reach the rocket belt, and even more dangerous for the enemy to remain long at a launch site. The increasing vulnerability of the enemy in his old and favored launch sites made attacks such as that of 15 July 1967 impractical. Additionally, the net of American sensors, observation posts, ground sweeps, and ambushes restricted enemy transport of rockets within striking distance of the air base. One example occurred in mid-January 1969 when the enemy, carrying rockets toward Da Nang was detected by sensors--confirmed by the Starlight Scope--and attacked by mortars, artillery, and an ambush. A ground sweep netted three 140-mm rockets.

The Marines estimated, however, that the VC/NVA had committed one-sixth of its total combat strength in central I Corps to a rocket capability. Its forces could not all be stopped from reaching the rocket belt. From October 1968 to April 1969, there were 37 separate attacks against the Da Nang Vital Area, including seven against the air base. Other frequently struck targets







included Marble Mountain, the Fleet Logistics Command, the Naval Support  $\frac{37}{}$  Activity near III MAF headquarters, and various Marine command posts.

Airborne surveillance of the rocket belt was a potential means of suppressing these rocket attacks and the Army, Marines, and Air Force flew many hours on rocket watch. Many routine VR sorties covered the Quang Nam lowlands every day. The Air Force Quang Nam FACs--Lopez--flew several daytime sorties, but according to the Lopez air liaison officer, they did not emphasize rocket surveillance over the other VR objectives. The Marine FACs in their OV-10s were responsible for the Marine and ROK TAORs. Additionally, the Army 0-1s of the 21st Reconnaissance Airplane Company were assigned several VR missions scattered over Quang Nam.

During the 1968/1969 Winter-Spring period, there were two specific rocket patrols flown daily, one by the 11th Marine Regiment and one by the 366th SP Sq intelligence officer. The Marines flew three treetop sorties daily in an OH-6A Light Observation Helicopter (LOH or "Loach") on loan from the Army. These three sorties were dedicated to rocket watch during daylight hours and often encountered the enemy. A few LOHs were shot down on these missions. However, the observers did not expect to discover an active launch site, though they thought the close daytime surveillance did deprive the enemy of daylight hours to prepare  $\frac{40}{\text{sites}}$ .

The 366th SP Sq rocket watch used sorties provided by other units--sometimes an Army 0-1 and often an Air Force psychological warfare (psywar) 0-2B. The project apparently evolved from the idea of having security intelligence







However, the search of the rocket belt at dusk seemed potentially more lucrative. Many enemy troops were spotted moving on the fringes of the rocket belt, especially to the south around Horseshoe Lake. For instance, on 13 March 1969, the intelligence officer saw six enemy who then took the aircraft under automatic weapons fire. Friendly troops directed into the area by the officer found 3,000 pounds of rice, small-arms, explosives, documents, and artillery and mortar rounds. In another instance, two months later, this same officer spotted an estimated enemy company 12 kilometers southeast of Da Nang, and stayed to direct artillery fire despite damage to the aircraft. The NVA suffered 107 known dead, and the incident was credited with helping disrupt an impending enemy attack.

The Marine and Air Force daylight rocket surveillance had little chance of seeing an active launch site, because the enemy could prepare a launch site in a few hours at night. A summary of enemy rocket tactics is available in the MACV report, Lessons Learned No. 71, "Countermeasures against Standoff Attacks," of 13 March 1969.

Rocket regiments, such as the 368B NVA Artillery Regiment, ringing Da Nang had a headquarters company, a signal and reconnaissance company, and three rocket battalions. The battalions each had three companies, with a 122-mm company authorized six launchers and 18 rockets and a 140-mm company authorized 16 launchers and 16 rockets. (Companies with the 107-mm rocket did not operate around Da Nang.) A launch tube was used with the 122-mm rocket, though the heavy tripod was usually replaced by some improvised wooden stakes. The 140-mm

rocket could be fired either from a small launch tube or from a dirt ramp.

Preparations for an attack included pre-positioning the weapons, usually within three to five kilometers of the launch site, and surveying the site to place aiming stakes. This latter usually occurred in the afternoon before an attack. Thus, when the crews arrived at the launch site after dark, carrying their equipment--having completed a march of perhaps an hour or 90 minutes-- they only needed to set up their rocket launchers or build dirt ramps, align them to aiming stakes, set the predetermined elevation, complete other minor tasks, and they were ready to fire. MACV estimated these preparations required  $\frac{45}{1}$  less than an hour.

Figures 6 and 7 show the 140-mm rocket site discovered by Marines at 1045 hours on 15 November 1968 in the Bo Ban area, the favored launch area for attacks against the air base. Fifteen rockets were found on ramps and another five were unearthed nearby. The tree lines and open areas of brush were typical of terrain south of Da Nang. (Research sources do not disclose any reason for  $\frac{46}{4}$  enemy abandonment of this prepared site.)

Given the simplicity of enemy preparations, the chances were slim that daylight VR would uncover an impending rocket attack. Such evidence as a survey crew, some aiming stakes, or trampled grass at a likely site would be transitory and hard to spot. In recognition of the limitations of daylight flights, the Air Force also flew night missions. In early 1968, there were 0-2 night rocket watches, but these had ceased by the end of the year. The Commander, 366th TFW, did have the "Commander's discretion" of launching precautionary rocket patrols







during night high-threat periods. The same situation existed for the Marines; they could fly a helicopter night partol, but rarely did. The observers could see little unless a rocket were fired and, in that situation, Marine artillery was usually placed on the probable site, as calculated by ground triangulations.

The Marines did not normally schedule the Light Observation Helicopter for night surveillance because of limited resources, and because darkness required a flight altitude too high for good results. The Air Force had flown a FAC watch at night in 1968, but the return did not warrant the cost once the rocket threat lessened. Fundamentally, the night observer needed light for an active rocket site to be observed before a launch. The cost of a flare/observer program to effectively watch the rocket belt during the high-threat periods was considered prohibitive, especially considering the generally minor rocket damage after 1968. Additionally, airborne observers were not needed to locate the launch sites by the rocket flash, because a network of ground observation towers around the Da Nang area did an adequate job.

When ground and air surveillance failed to prevent an enemy rocket attack, the next countermeasure was rapid counterfire to end the attack as soon as possible. During the Winter-Spring Offensive of 1968/1969, counterfire was rapid enough to prevent a recurrence of costly attacks. The impact of counterfire on enemy tactics was described by an enemy rocket company commander:

"The primary problem for our forces is air observation by the U.S. followed by quick reaction airstrikes (helicopter or fixed-wing). This limits the number of rounds that can be fired on an installation. The rocket exhaust is visible for nearly 300 meters from point of ignition to point of burnout. This provides air observers







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with easily recognizable pinpoint locations of the launch site. Consequently, we have adapted hit and run tactics in accordance with the principles of guerrilla warfare.

"No more than five rounds are fired from any single tripodtype launcher. This takes about 20 minutes. No more than two salvos are fired from homemade launchers, which takes about ten minutes. Displacement only involves the immediate pickup of all equipment and leaving the area with all possible speed, which takes about five minutes."

Quick reaction firepower available around Da Nang consisted of artillery, the AC-47 gunship, and tactical air. Scattered around the area were ten primary observation posts (OPs) such as Batman, Hawk, and Crows Nest. (Fig. 5.) These towers of approximately 60 feet were manned throughout the night to spot the flash of rockets and to determine the azimuth of the launch positions. The Marine artillery units in the various TAORs received and plotted the azimuths, obtained clearances, and directed fire, usually within minutes. The Marines preferred artillery to tactical air or gunships, because of artillery's capability for initial rapid response and indirect fire, the latter eliminating a need to mark the target. The 1st MarDiv Operations Order on enemy rocket attacks explicitly stated that artillery was the principal weapon in counter-rocket suppression fire.

An AC-47 gunship orbited Da Nang throughout each night and had the firepower to attack rocket sites. Usually, the aircrew spotted the flash of a rocket
ignition and could locate the general launch area. The Marines did have reservations about the ability of the gunship to find and hold the target, once
the site returned to darkness. The Spooky personnel acknowledged that finding
a specific location on a dark night, without prominent landmarks or enemy fire,
could be difficult. In any case, the firing altitude of the gunship corresponded





to the airspace of artillery trajectories, and the Marines chose artillery. In August 1969, according to the operations officer of the AC-47 contingent at Da Nang, in his nine months with the Spooky operations he could not remember an instance when Spooky attacked a rocket site around Da Nang.

The results of the various U.S. efforts to stop rocket attacks against the Da Nang Vital Area were mixed. Certainly the tightening Marine control of the lowlands and the expanding anti-infiltration systems restricted enemy movement in the rocket belt, and curtailed his ability to stage attacks similar to the one on 15 July 1967. Marine data showed that rocket attacks in the Da Nang area averaged 27 rounds per 1967 attack and 13 rounds per 1968 attack. Rocket accuracy therefore declined, because the enemy could less afford the added weight of large rocket launchers, or the longer time needed to fire several volleys from a launcher. Dirt ramps allowed a faster launch of many rockets but degraded accuracy. The Allied counterbattery fire caused the enemy to scatter his launch sites and make simultaneous attacks from more than one location. Sometimes a number of sites were used, each attacking a different target during the course of one night. An extreme example occurred in the early hours of 23 February 1969, when a number of rockets were fired:

Time	Type	Range Fired	Target				
0204	122-mm	11,050	Deep Water Pier				
0208	140-mm	8,200	Force Logistic Command				
0312	140-mm	9,400	ARVN Ammo Supply Point				
0530	140-mm	9,600	Da Nang Air Base Fuel Dump				
0543	140-mm	5,600	Hill 34 Marine Camp				
1053	140-mm	8,400	26th Marine Regt. Command Post				



FIGURE 8

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The attack at 1053 hours in broad daylight was almost unique for the Da Nang area.

The Commander, 366th TFW, said the attacks after Tet 1968 had caused  $\frac{53}{53}$  However, rocket attacks against the Da Nang area continued unabated. Throughout the first eight months of 1969, the number of attacks was comparable to previous periods. Damage was far less, partly due to Allied offensive pressures, and partly due to better revetting on the air base. From mid-1968 to April 1969, the Air Force built 98 steel arch shelters at Da Nang, each covered with 15 inches of concrete. In March 1969, one of these shelters received a direct hit from a 140-mm rocket and sustained very slight damage. (Fig. 8.) The F-4 inside the shelter was undamaged.

The enemy retained a strike capability, however, that Allied offensive countermeasures in the air and on the ground could not prohibit. The point was proved again on 6 September 1969, between 0145 and 0230 hours, when 18 attacks by fire (89 mortar rounds and 53 rockets) struck the air base, the 1st MarDiv headquarters, the III MAF compound, Marble Mountain, and other installations. Five sapper and small ground probes were also launched, theough not against the air base. Allied casualties included 3 Americans and 12 Vietnamese civilians killed and 72 Americans evacuated because of wounds. Material damage was very light, especially at the air base. Thus, during 1969, the enemy continued his sapper and rocket attacks, but with little hampering of Air Force combat capabilities.

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#### **FOOTNOTES**

#### CHAPTER I

- (S) Rprt, Fleet Marine Force, Pacific, "Operations of U.S. Marine 1. Forces--Vietnam," Jan 69, pg 31. (Hereafter cited: Rprt. FMF-Pac Operations.)
- 2. Ibid: (S) End of Tour Rprt, Col Paul C. Watson, Comdr. 366th TFW, 17 Jan 68-2 Jan 69, pg 2.
- 3. (S) Rprt, FMF-Pac Ops, Dec 68, pp 3-4, 46; (C) Interview, Lt Col Donald J. Parsons, USAF, Ops Off, Horn DASC, by Capt Dorrel T. Hanks, Jr., CHECO Div, Hg 7AF, DOA, 25 Jul 69.
- 4. Ibid: (S) End of Tour Rprt, Col Paul C. Watson, Comdr, 366th TFW, 17 Jan 68-2 Jan 69, pg 47.
- (S) 5. Rprt, FMF-Pac Ops, Jun 68-Apr 69.
- 6. Ibid, Feb 69, pg 26.
- (S) PACAF Fm 20, Horn DASC, I Corps, "Horn DASC Single Air Manager 7. Rprt," Oct 68-Apr 69.
- (C) Interview, Lt Col Wallace T. McKenzie, Comdr, A Flight, 4th SOS, 8. 17 Jul 69.
- 9. (S) Rprt, FMF-Pac Ops, Jul 68, pg 57.
- 10. (S) Interview, Maj R. E. Theer, USMC, Ground Surveillance Off, 1st MarDiv, 22 Aug 69.
- 11. Ibid.
- 12. Ibid.
- 13. Ibid.
- 14. (S) Msg, COMUSMACV to JCS, "DUFFEL BAG/OPREP 5, 24-30 Jan 69," 2 Feb 69.
- CHECO Rprt, Hq PACAF, DOTEC, "7AF Local Base Defense Operations, 15. (S/NF)July 1965-December 1968," 20 Aug 69.

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- 16. (C) Interview, Capt William B. Jackson, OIC, Weapons Systems Security, Intelligence Off, 366th SP Sq, 24 Aug 69.
- 17. Ibid;
  - (S) Hist Rprt, 366th TFW, Apr-Jun 68, pg 8;
  - (U) Hist Rprt, 366th SP Sq, Oct-Dec 68.
- 18. (S) End of Tour Rprt, Col Paul C. Watson, Comdr, 366th TFW, 17 Jan 68-2 Jan 69, pg 46. (Hereafter cited: Colonel Watson End of Tour Rprt.);
  (S/NF) Hist Rprt, 366th TFW, Oct-Dec 68, pg 77.
- 19. (S) Colonel Watson End of Tour Rprt, pp 48-49;
  - (C) Interview, Capt William B. Jackson, OIC, Weapons Systems Security and Intelligence Off, 366th SP Sq, 26 Aug 69;
    - (C) Interview, MSgt David T. Joseph, Tiger Flight, NCOIC, 366th SP Sq, 26 Aug 69.
- 20. (S) Hist Rprt, 366th TFW, Jan-Mar 68, pg 88.
- 21. (S) Colonel Watson End of Tour Rprt, pg 49.
- 22. (S) Hist Rprt, 366th TFW, Apr-Jun 68.
- 23. (S) Ltr, Col Paul C. Watson, Comdr, 366th TFW to IG, 7AF, subj: Special Inspection, 5 Jul 68; (S/NF) Hist Rprt, 366th TFW, Oct-Dec 68, pg 77.
- 24. (S) Hist Rprt, 366th TFW, Jan-Mar 69, pg 26;
  - (C) Interview, MSgt David T. Joseph, Tiger Flight, NCOIC, 366th SP Sq, 26 Aug 69.
- 25. (C) Msg, OSI, 1st Det to OSI, Da Nang AB, subj: VC Female Sapper Recognition Signal, Sep 68.
- 26. (S) Hist Rprt, 366th TFW, Jul-Sep 68, pg 7.
- 27. (C) Interview, Capt Joseph Conrad, Civic Action Off, 366th TFW, 9 Aug 69.
- 28. <u>Ibid</u>.
- 29. (S) Hist Rprt, 366th TFW, Jul-Sep 68, pg 76.
- 30. (C) Interview, Capt Joseph Conrad, Civic Action Off, 366th TFW, 9 Aug 69.
- 31. (S) Ltr, Col Paul C. Watson, Comdr, 366th TFW to DO, 7AF, subj: Base Security, 16 May 68.

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- 32. (C) After Action Report, 366th TFW, "15 Jul 67 Rocket Attack," 25 Jul 67.
- 33. (S) Colonel Watson End of Tour Rprt, pg 42.
- 34. (S) Ltr, Col Paul C. Watson, Comdr, 366th TFW to DO, 7AF, subj: Base Security, 16 May 68.
- 35. (S) Msg, COMUSMACV to JCS, "DUFFEL BAG/OPREP 5, 17-23 Jan 69," 26 Jan 69.
- 36. (S) Rprt, MFM-Pac Operations, Nov 68, pg 46.
- 37. (C) Working Paper, 11th Mar Regt (Arty), Rocket Attacks Around Da Nang, Feb 67-Jun 69, undated.
- 38. (C) Interview, Lt Col W. A. Renelt, Quang Nam ALO, 21 Aug 69.
- 39. (C) Interview, Capt William C. Ogletree, USA, G-2 Air, I Corps, by Capt Dorrel T. Hanks, Jr., Hq 7AF, DOA, CHECO Div, 3 Aug 69.
- 40. (C) Interview, Lt Col R. P. Johnson, USMC, Ops Off, 11th Mar Regt (Arty), 22 Aug 69.
- 41. (C) Interview, Capt William B. Jackson, OIC, Weapons Systems Security, Intelligence Off, 366th SP Sq. 26 Aug 69.
- 42. (U) Hist Rprt, 366th SP Sq, Jan-Mar 69, pg 6.
- 43. (C) Hist Rprt, 366th SP Sq, Apr-Jun 69, pg 8.
- 44. (C) Lessons Learned Nr 71, MACV, "Countermeasures against Standoff Attacks," 13 Mar 69.
- 45. <u>Ibid</u>, pg 27.
- 46. (S) Rprt, MFM-Pac Operations, Nov 68, pg 46; (C) MACV COC Log, (1339H), 17 Nov 68, pg 16.
  - (a) 1880 dec 20g, (18031), 17 HeV de, pg 16.
- 47. (C) Interview, Lt Col R. P. Johnson, USMC, Ops Off, 11th Mar Regt (Arty), 22 Aug 69.
- 48. (C) Lessons Learned Nr. 71, MACV, "Countermeasures against Standoff Attacks," 13 Mar 69.
- 49. (C) 1st MarDiv Order, PO 3300.1, "FSCC Operations during Rocket or Artillery Attack," 30 Jul 68;
  - (C) Interview, Lt Col R. P. Johnson, USMC, Ops Off, 11th Mar Regt (Arty), 22 Aug 69.



- 50. (C) Interview, Lt Col R. P. Johnson, USMC, Ops Off, 11th Mar Regt (Arty), 22 Aug 69;
  (C) Interview, Capt V. W. Barclay, Ops Off, 4th SOS (OL, Da Nang AB), 27 Aug 69.
- 51. (S) Rprt, FMF-Pac Operations, Dec 68, pg 45.
- 52. (C) Working Paper, 11th Mar Regt (Arty), Rocket Attacks around Da Nang, Feb 67-Jun 69, undated.
- 53. (C) Ltr, Col Paul C. Watson, Comdr, 366th TFW to I DASC, and Others, subj: Rocket Patrol, 17 Jun 68.
- 54. (U) Interview, Maj Rocky Thorpe, Ops Off, 820th Civil Eng Sq, Da Nang, 27 Aug 69.
- 55. (U) After Action Report, 366th TFW, "140-mm Rocket Hit on a Wonder Shelter," 29 Mar 69.
- 56. (C) MACV COC Log, (0938H), 6 Sep 69, pg 11.



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#### APPENDIX I

#### TACTICAL AIR SORTIES IN QUANG NAM 28 SEPTEMBER - 27 APRIL 1969

#### SUPPORTING UNITS

	Pr	replans				Add	Ons	7	
	USAF	USMC	VNAF	TOTAL	USAF	USMC	VNAF	TOTAL	
QNS	188	265	607	1,060	180	192	65	437	
1 MarDiv	239	3,465	-	3,704	97	2,939	-	3,036	
2 ROK	-	429	-	429	1	190	=	191	
Total	427	4,159	607	5,193	278	3,321	65	3,664	
Immediates						Total Sorties			
	USAF	USMC	VNAF	TOTAL	USAF	USMC	VNAF	TOTAL	
QNS	330	425	435	1,190	698	882	1,107	2,687	
1 MarDiv	192	3,356	-	3,548	528	9,760	-	10,288	
2 ROK	8	140	-	148	9	759	-	768	
Total	530	3,921	435	4,486	1,235	11,401	1.107	13.743	

#### LEGEND

- . Quang Nam Sector encompasses sorties supporting 51st Regt and other ARVN units in Quang Nam Province.
- . Marine totals include Navy statistics.

SOURCE: Rprt, Horn DASC, I Corps, "Horn DASC Single Air Manager," Oct 68 - Apr 69.



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#### **GLOSSARY**

ARVN Army of Republic of Vietnam

BPS Balanced Pressure Sensor

CHICOM Chinese Communist

COMUSMACV Commander, U.S. Military Assistance Command, Vietnam

DASC Direct Air Support Center

FAC Forward Air Controller

KIA Killed in Action

LOH Light Observation Helicopter

MACV Military Assistance Command, Vietnam

MAF Marine Amphibious Force

MarDiv Marine Division
MAW Marine Air Wing
mm Millimeter
MP Military Police

NCO Noncommissioned Officer NVA North Vietnamese Army

OL Operating Location
OP Observation Post
OPREP Operations Report

OSI Office of Security Intelligence

Psywar Psychological Warfare

QNS Quang Nam Sector

ROK Republic of Korea

SP Sq Security Police Squadron

TAOR Tactical Area of Responsibility

TFW Tactical Fighter Wing

VC Viet Cong

VNAF Vietnam Air Force
VR Visual Reconnaissance